

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

PCT/JP2003/013785



Applicant's or agent's file reference IH-146	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/JP2003/013785	International filing date (day/month/year) 28 October 2003 (28.10.2003)	Priority date (day/month/year) 31 October 2002 (31.10.2002)
International Patent Classification (IPC) or national classification and IPC A01N 43/40, C07D 213/61, 213/64, 213/65, 213/69, 213/70		
Applicant ISHIHARA SANGYO KAISHA, LTD.		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand 09 April 2004 (09.04.2004)	Date of completion of this report 06 October 2004 (06.10.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/013785

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ The international application as originally filed/furnished
- ☐ the description:
- pages _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the claims:
- pages _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/JP 03/13785

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	2	YES
	Claims	1, 3	NO
Inventive step (IS)	Claims		YES
	Claims	1-3	NO
Industrial applicability (IA)	Claims	1-3	YES
	Claims		NO

2. Citations and explanations

Document 1: WO 02/2527 A1 (Ishihara Sangyo Kaisha, Ltd.), 10 January 2002, claims and tables 1-4, 12, 13, 19-22, 30 and 31

The inventions that are set forth in claims 1 and 3 lack novelty in the light of document 1 cited in the international search report.

In addition, the inventions that are set forth in claims 1 to 3 do not involve an inventive step in the light of document 1.

Document 1 discloses the feature of using benzoyl pyridine derivatives that are represented by formula (I) as bactericidal agents, and also discloses phenyl pyridyl methanols represented by formula (X), which are production intermediates for the abovementioned compounds. In addition, the compounds that are set forth in claims 1 and 2 of the present application are included within the scope of the abovementioned formula (I), with compound 158 from table 12 specifically corresponding to 3-(2, 3, 4-trimethoxy-6-methylbenzoyl)-5-chloro-2-methoxy-4-methyl pyridine; as a result, the disclosure in question equates to the disclosure of bactericidal agents that comprise the abovementioned compound, as well as intermediates therefor.

Furthermore, the abovementioned portions of the table present compounds that are represented by formulas (I-1), (I-6) and (I-7), wherein position 6 of the phenyl group is a methyl group and positions 2, 3 and 4 are methoxy groups. Therein, with regards to the substituent groups for the pyridyl groups in the compounds in question, other than the abovementioned compound 158 document 1 also discloses compounds such as compounds 43, 49, 55, 56, 85, 140, 141, 150, 155, 156, 159, 161, 162, 164, 165, 168, 169, 181 and 182, which only differ from the compounds that are set forth in claims 1 and 2 of the present application according to the sites of the substitutions and the type of halogen, and it would be easy for a person skilled in the art to conceive of changing the sites of the substitutions or the type of halogen in the compounds in question. In addition, the abovementioned table presents various compounds that comprise combinations of trifluoromethyl groups, methoxy groups, alkyl groups and halogen groups; therefore, it would be easy for a person skilled in the art to conceive of combining these groups, as appropriate. Furthermore, the compounds that are set forth in claims 1 to 3 cannot be said to exhibit an especially prominent effect in comparison to the other compounds that are disclosed in document 1.